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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,356	06/25/2003	Thomas Daly		2566

7590

11/15/2005

Clifford Kraft
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EXAMINER

METZMAIER, DANIEL S

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/603,356

Applicant(s)

DALY, THOMAS

Examiner

Daniel S. Metzmaier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 46-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 46-67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 46-67 are pending.

Applicants letter filed September 15, 2005 is acknowledged. To the extent applicants intends an amendment to the specification to indicate the copending applications are to be cross-referenced, applicants should clearly indicate an amendment to the specification. To the extent applicants are merely bringing the copending applications to the Offices' attention, they should so state.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 51-56 and 62-67 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 51-56 and 62-67 are considered to contain new matter. Applicants have not set forth the basis for said newly claimed subject matter.

The original claims set forth "a surfactant" comprising the bromo-nitro molecule of the original independent claims. The specification only mentions the corrosion (page 2, lines 8-11) regarding an increase in corrosion due to a drop in pH resulting from bacterial degradation. The specification only mentions fatty acids regarding the

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formation of the bromo-nitro esters. The specification is silent regarding a metal working fluid further containing each of an oil, water or a base *per se*. It is further noted the metal working fluid base provided in example 1 is acid catalyzed with sulfuric acid and would be expected to be at least slightly acidic without some form of neutralization.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 46-47 and 57-58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The transitional language, "consisting of essentially" is indefinite regarding applicant's intended scope of the claims. Transitional language that has been litigated and has an accepted meaning in patent law is "consisting essentially of". Furthermore and since "containing" has the same meaning as "comprising", it is suggested applicant employ "an ester having a bromo-nitro moiety" in claim 57.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 46-50 and 57-61 are rejected under 35 U.S.C. 102(b) as being anticipated by Klemm et al, **Dünnschichtchromatographische Untersuchungen biocider 2-Brom-2-nitro-propan-Derivate**, *Journal of Chromatography*, Vol. 438, No. 1 (April 1,

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1998) pages 122-125. Klemm et al (page 122, formula 2-15) discloses a generic structure for 2-bromo-2-nitro-propane-1,3-diol derivatives, wherein R and R' are defined in Table 1. Klemm et al (Table 1) defines R and R' to include fatty carboxylic acid residues including monoesters and diesters including number 8 defining bis-stearate esters, i.e., $\text{H}_{35}\text{C}_{17}\text{C}(=\text{O})\text{OCH}_2\text{C}(\text{Br})(\text{NO}_2)\text{CH}_2\text{OC}(=\text{O})\text{C}_{17}\text{H}_{35}$. Claims are included in this rejection since the compounds would inherently function as a metal working fluid of the preamble. The term "metal working fluid" is interpreted as a fluid material useful in metal working. The compounds are recognized biocides as is evidenced by the title "biocider".

7. Claims 46-50, 52, 55, 57-61, 63, and 66 are rejected under 35 U.S.C. 102(b) as being anticipated by Shintoo Fine KK, JP 2000053502 A, as evidenced by Derwent Abstract AN 2000-353243 and JPO machine translation. Shinto Fine KK (see Derwent Abstract) discloses industrial microbiocide and microbiostatic having use in industrial aqueous systems, wherein R1 and R2 are defined as alkyl groups. Shintoo Fine KK (paragraph [0001], Field of the Invention) discloses the industrial microbiocide and microbiostatic agents for use in industrial water systems including metalworking fluid. Said disclosure anticipates the claimed compositions.

Claims 52 and 63 are included herein since the biocide is considered a corrosion inhibitor since (instant specification, page 2, lines 8-11) applicants disclose when the bacteria is permitted to grow, the pH drops and the metal corrodes. By the addition of the bromo-nitro esters, the composition contains an a corrosion inhibitor.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 51, 53-54, 56, 62, 64-65, and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinto Fine KK, JP 2000053502 A, as evidenced by Derwent Abstract AN 2000-353243 and JPO machine translation, optionally in view of Ajoku et al., US 5,656,670. Shinto Fine KK (see Derwent Abstract) discloses industrial microbiocide and microbiostatic having use in industrial aqueous systems reading on the instant claim 34, wherein R1 and R2 are defined as alkyl groups. The term "metal working fluid base" is interpreted as a basic material useful in metal working fluids.

To the extent claim 37 differs in the compounds are employed in a metal working fluid base, Shinto Fine KK (see Derwent Abstract) discloses industrial microbiocide and microbiostatic having use in industrial aqueous systems. Said industrial aqueous systems would include "metal working fluid base", such as soluble oils conventionally used as cutting oils, grinding or milling lubricants that conventionally employing biocides.

It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to employ the Shinto Fine KK (see Derwent Abstract) industrial microbiocide and microbiostatic compounds in industrial aqueous systems including

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soluble oils conventionally used as microbiocide and microbiostatic agents in cutting oils, grinding or milling lubricants and conventionally employing biocides.

Ajoku et al (abstract and columns 1 and 2) discloses synergistic antimicrobial agents including 2-bromo-2nitropropane-1,3-diol related to the compounds of claim 36. Ajoku et al (column 1, lines 55 et seq) makes no distinction between "antimicrobial", "biocide", and "inhibiting microbial growth". Ajoku et al (column 1, lines 66 et seq) discloses a number of industrial fluids that the compositions may be added including paints, latex, cutting oils and metal working fluids for controlling bacterial growth and slime control.

These references are combinable because they teach biocides. It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to employ the compositions of Shinto Fine KK in a metal working fluid base as conventionally shown in the Ajoku et al reference.

Double Patenting

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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11. Claims 40-42 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 34-45 of copending Application No. 10/350,928. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims defining a reaction product of an alcohol and a carboxylic acid encompass the polymers of '928 copending claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

12. Applicant's arguments filed August 24, 2005 have been fully considered but they are not persuasive.

13. Applicant (pages 6 and 7 of the August 24, 2005 response) asserts neither the Shintoo Fine KK or the Ajoku et al references disclose or suggest the claimed agents to prevent biodegradation in metal working fluids, particularly in the form of an oil or an emulsion. Applicant further asserts disinfecting is very different from simply preventing biodegradation. This has not been deemed persuasive for the following reasons: (1) claims 46, 48, 50, 57, and 61 are the independent claims. Only claims 50-56 and 61-67 require "an amount" of the claimed agent "to prevent biodegradation". The remaining claims merely require a metal working fluid with said agent.

(2) Applicant discloses (page 8, lines 6-9, of the instant a specification) 1-50 ppm as a suitable effective amount. It is reasonable to conclude that the Shintoo Fine KK amount to disinfect is "an effective amount to prevent biodegradation". Furthermore,

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Shintoo Fine KK (claim 3, Tables) sets forth the use of 1 to 20,000 ppm of the agent, which reads on applicant's disclosed effective amount. The amount set forth in Shintoo Fine KK to disinfect is patentably indistinct from an effective amount to prevent biodegradation and at least overlaps said amounts.

(3) Applicant (page 7) asserts the use suggested by Shintoo Fine KK would be dangerous to human workers. Applicant has provided no basis for said conclusion. The Shintoo Fine KK reference discloses overlapping effective amounts. Applicant's claims do not make this distinction nor do the claims exclude an excess of the biocidal agents. The specification makes no mention of toxicity based on the concentrations. Shintoo Fine KK (paragraph [0001], claim 3, and Tables of machine translation) sets forth the use of 1 to 20,000 ppm of the agent for preventing bacterial and fungal slime in metal working fluids.

14. Applicant (page 7) asserts Ajoku et al suggest the use of 2-bromo-2-nitropropane-1,3-diol directly as an antimicrobial, which is well known in the art. Applicant further asserts there is no suggestion in the Ajoku et al reference to form the ester or to prevent biodegradation of a metal working fluid. This has not been deemed persuasive since Ajoku et al is cited merely cited (column 1, lines 66 et seq) to show it is well known to add 2-bromo-2-nitropropane-1,3-diol to a number of industrial fluids including paints, latex, cutting oils and metal working fluids for controlling bacterial growth and slime control. The ester compounds are clearly shown in the Shintoo Fine KK reference.

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Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Metzmaier whose telephone number is (571) 272-1089. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Daniel S. Metzmaier
Primary Examiner
Art Unit 1712

DSM